

**IN THE CLAIMS:**

Please amend the claims as set forth herein:

1. (Currently Amended) A method for fabricating a semiconductor memory device, comprising the steps of:
  - depositing first and second insulating layers on a semiconductor substrate having a ~~predetermined~~ shallow trench isolation (STI) region and a ~~predetermined~~ deep trench isolation (DTI) region;
  - forming the STI region by selectively etching the second and first insulating layers and the semiconductor substrate;
  - forming a photoresist to cover the STI region and expose the ~~predetermined~~ DTI region;
  - curing a surface of the photoresist by implanting high energy argon ions or through an e-beam process, ~~causing polymers in said photoresist to crosslink and thereby increasing an etch resistance of said photoresist~~ wherein implanting concentration of argon ions is  $10^{12} \sim 10^{15} \text{ cm}^{-3}$  and implanting energy of argon ions is  $10 \sim 200 \text{ KeV}$ , said argon employed only to supply energy to said photoresist; and
  - forming the DTI region by using only the cured photoresist and the second insulating layer as a mask.

Claims 2-3. (Canceled).

4. (Previously Presented) The method according to claim 1, wherein the curing step of the photoresist surface is performed by an e-beam curing process in which high energy electrons are passed through the surface of the photoresist.

5. (Previously Presented) The method according to claim 4, wherein an energy of the e-beam curing process is  $1000 \sim 2000 \text{ uC/cm}^2$ .

6. (Previously Presented) The method according to claim 1, wherein the photoresist formation process includes an exposure process, which selects one light source among i-ray (365nm), KrF (248nm) and ArF(193nm).

7. (Original) The method according to claim 1, wherein the first insulating layer is a pad oxide layer.

8. (Original) The method according to claim 1, wherein the second insulating layer is a pad nitride layer.

9. (Currently Amended) The method according to claim 1, wherein the STI region has a depth of  $2500 \sim 3000 \text{ \AA}$  from the a surface of the semiconductor substrate.

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10. (Currently Amended) The method according to claim 1, wherein the DTI region has a depth of 7000 ~ 8000Å from ~~the~~ a surface of the semiconductor substrate.